

## CLAIMS:

1. A method for light script command encoding for dynamically controlling an ambient light source (88), comprising:

[1] Encoding a setting code (S) usable by said ambient light source to specify at least one controlled operating parameter that comprises at least one of a luminance (Y), a chrominance (x, y), and a light character (G);

[2] Encoding a change code (T) usable by said ambient light source to specify at least one change in said controlled operating parameter, said change code comprising at least one of a change type (F) and a rate parameter (Q); and said setting code and said change code each so formulated that said ambient light source using same and so dynamically controlled can fully execute said change through a range of values (R) of said controlled operating parameter without further command encoding.

2. The method of claim 1, wherein said ambient light source comprises a plurality of individual light sources (3, CL1) and wherein said setting code is further encoded to specify said controlled operating parameter for any of a plurality of light IDs (1 ... N), each corresponding to one of said individual light sources.

3. The method of claim 1, wherein said ambient light source comprises a plurality of individual light sources (3, CL1) and wherein said change code is further encoded to specify said change in said controlled operating parameter for any of a plurality of light IDs (1 ... N), each corresponding to one of said individual light sources.

4. The method of claim 1, further comprising:

[3] encoding a second change code (T2) usable by said ambient light source to specify at least one second change in at least said controlled operating parameter, said second change code comprising at least one of a second change type and a second rate parameter; said setting code and said second change code each so formulated that said ambient light source so dynamically controlled can fully execute said second change without further command encoding.

5. The method of claim 4, further comprising:  
[4] encoding a repeat of said setting code formulated to be usable by said ambient light source after said second change code.
6. The method of claim 1, wherein said change code is so formulated as to further encode at least one of a start time and a stop time for said change.
7. The method of claim 1, wherein the change code comprises a change type that specifies said change in said controlled operating parameter, wherein said change type comprises at least one of: a fade in; a fade out; a sinusoidal output; a trigonometric output; a spike; a waveform; a specified function (F1) of said operating parameter; an operator; and an envelope (C).
8. The method of claim 1, wherein the change code comprises a rate parameter that specifies said change in said controlled operating parameter, wherein said rate parameter comprises at least one of: an argument of a function (2); a fade in time period over which a fade in occurs; a fade out time period over which a fade out occurs; a magnitude of a function; a phase of a function; an off time period; an on time period; and a step frequency.
9. The method of claim 1, further comprising entropy encoding of at least part of at least one of said setting code and said change code.
10. The method of claim 1, further comprising recording a script comprising at least one of said setting code and said change code into packetized data (S, T).
11. The method of claim 10, further comprising transmitting said script over at least one of a content carrier, synchronous data carrier and an asynchronous data carrier, and decoding said script to allow said dynamic control of said ambient light source.

12. The method of claim 1, further comprising recording a script comprising at least one of said setting code and said change code onto a computer-readable medium (DVD).

13. The method of claim 12, further comprising reading said script on said computer-readable medium (DVD) during a display of video content.

14. The method of claim 1, further comprising recording a script comprising said setting code and said change code into packetized data (S, T), said packetized data so formulated so as to allow separate communication of said setting code and said change code.

15. A method for dynamically controlling an ambient light source using light script command encoding, comprising:

[1] decoding a setting code that specifies settings usable by said ambient light source;

[2] using said decoding of said setting code to specify at least one controlled operating parameter that comprises at least one of a luminance (Y), a chrominance (x, y), and a light character (G);

[3] driving said ambient light source using said controlled operating parameter;

[4] decoding a change code that specifies at least one change in said controlled operating parameter, said change code comprising at least one of a change type (F) and a rate parameter (Q);

[5] driving said ambient light source using said change through a range of values (R) of said controlled operating parameter without further light script command decoding.

16. The method of claim 15, additionally comprising, prior to step [1], deriving said setting code from a first signal source (HD), and said change code from a second signal source (AVS, DVD).

17. The method of claim 15, additionally comprising, prior to step [1], reading at least one of said setting code and said change code from a computer-readable medium (DVD).

18. The method of claim 15, additionally comprising, after step [4], further changing said controlled operating parameter based on decoding one of a user preference and an input from a user interface.

19. An article of manufacture comprising:

a computer-readable medium (DVD) having computer-readable light script command encoding for dynamically controlling an ambient light source (88), said computer-readable medium comprising at least one of:

[1] a computer-readable a setting code (S) usable by said ambient light source to specify at least one controlled operating parameter that comprises at least one of a luminance (Y), a chrominance (x, y), and a light character (G); and

[2] a computer-readable change code (T) usable by said ambient light source to specify at least one change in said controlled operating parameter, said change code comprising at least one of a change type (F) and a rate parameter (Q); and said setting code and said change code each so formulated that said ambient light source using same and so dynamically controlled can fully execute said change through a range of values (R) of said controlled operating parameter without requiring further reading of said light script command encoding.

20. The article of claim 19, further comprising a computer-readable second change code (T2) usable by said ambient light source to specify at least one second change in at least said controlled operating parameter, said second change code comprising at least one of a second change type and a second rate parameter; said setting code and said second change code each so formulated that said ambient light source so dynamically controlled can fully execute said second change without requiring further reading of said light script command encoding.